

Name: \_\_\_\_\_

### at1110paper\_practice\_test (v9)

- Solve the equation with factoring by grouping.

$$12x^2 + 18x - 10x - 15 = 0$$

$$(6x - 5)(2x + 3) = 0$$

$$x = \frac{5}{6} \quad x = \frac{-3}{2}$$

- Factor the expression.

$$x^2 - 16x + 63$$

$$(x - 9)(x - 7)$$

- Solve the equation.

$$(5x + 4)(9x - 2) = 0$$

$$x = \frac{-4}{5} \quad x = \frac{2}{9}$$

- Expand the following expression into standard form.

$$(4x - 7)^2$$

$$16x^2 - 28x - 28x + 49$$

$$16x^2 - 56x + 49$$

5. Expand the following expression into standard form.

$$(6x + 7)(6x - 7)$$

$$\begin{aligned}36x^2 - 42x + 42x - 49 \\36x^2 - 49\end{aligned}$$

6. Expand the following expression into standard form.

$$(9x + 4)(7x + 5)$$

$$\begin{aligned}63x^2 + 45x + 28x + 20 \\63x^2 + 73x + 20\end{aligned}$$

7. Factor the expression.

$$16x^2 - 9$$

$$(4x - 3)(4x + 3)$$

8. Solve the equation.

$$9x^2 - 45x + 18 = 4x^2 - 3x + 2$$

$$5x^2 - 42x + 16 = 0$$

$$(5x - 2)(x - 8) = 0$$

$$x = \frac{2}{5} \quad x = 8$$